YOUNG SCIENCE

Frogs. By David Badger, John Netherton (photography). 2000. Voyageur Press (123 North Second St., Stillwater, MN 55082). 72 pp. Paperback $16.95. (ages 9-12).

The talented Badger and Netherton team previously collaborated on another WorldLife Library book on **Snakes.** In this present effort, **Frogs,** Netherton has provided over 50 stunning color photographs to complement Badger's text.

In the introductory chapter "The Fundamental Frog", the author briefly discusses the unique anatomy and physiology of frogs and describes the diversity of this taxonomic group. The chapters that follow address frog vocalizations, life cycle and frog lore. The remaining half of the book deals with specific frogs and toads and how they as "environmental barometers" have declined in numbers or suffered deformities. The "Gallery of Frogs" features four of the 28 recognized frog families: Tree Frogs, "True" Frogs, Toads, and Dart-Poison Frogs.

The book is not intended to serve as field guide or comprehensive text on the 4,360 different species of frogs. It does bring to light many of the important issues surrounding frogs. The impact of the introduction of the cane toad in Australia, popularity of tropical frogs as pets, rain forest destruction, pollution, and global warming are all addressed here. A table of contents and index make the book easy to use for the younger reader. The photographs will appeal to readers of all ages.

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Shocking, Slimy, Stinky, Shiny Science Experiments. By Steve Parker. 1998. Sterling Pub. Co. (387 Park Ave. South, New York, NY 10016). 96 pp. Paperback $12.95. (ages 4 – 8).

This book not only has a great title but it is also a very colorful volume. The 96-page paperback is full of cute little experiments for the younger set. There are great colorful pictures and illustrations on every page. The one problem I had with the book was trying to gauge the intended audience.

Mr. Parker has a knack for making relatively complex subjects very understandable, but some activities appear more advanced while others, by contrast, seem extremely elementary. For example, on p. 63 the activity is pretty simple, get a worm or snail and watch it crawl; then on p. 64 he talks of "pythons reaching a length of 20 feet (6 meters), and kill their prey by constriction." Experiment 2 has the child shine a flashlight on the wall, then stick his hand in front to make shadows, while Experiment 6 goes into angles of reflection compared to the angle of incidence.

There are activities using simple circuits, adhesion theory and the viscosity of slime, as well as several sensory (stinky) activities involving taste and smell. If you are looking for some inexpensive, easy-to-do activities for a variety of students and age groups, this book could be a handy resource.

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The Beast In You: Activities and Questions to Explore Evolution. By Marc McCutcheon. 1999. Kaleidoscope Kids Books, Williamson Publ. Co., (PO Box 185, Charlotte, VT 05445). 96 pp. Paperback $10.95. (ages 7 – 14).

If you are a middle school teacher who is in search of a resource to show a balanced view of evolution to your students, pick up a copy of Mr. McCutcheon's **The Beast In You.** This is a delightful book that takes children by the hand and helps them look at natural selection and evolution with humor and intelligence.

What 11-year-old is not interested in teeth – which are usually about to be wired with braces! McCutcheon uses known quantities such as the presence of canines, the use of the grin/grimace, the goose-bump factor, and a look at the hairy beast to establish links with lower animals as well as those animals that are no longer around.

The author introduces evolution to youngsters by using common examples that show the length of periods of time, variation in a population, and adaptation as acceptable "facts" of life.

Explaining and investigating early human life and its evolution to present-day human beings is no small task when dealing with middle-schoolers. McCutcheon uses facts along with acceptable and sometimes challenging language to show how adaptations may have led to the evolution of hominids with varying brain capacities. His thorough discussion of Lucy as an example of an early hominid permits McCutcheon to explain the importance of fossil evidence. This section of the book describes several very "do-able" experiments to go along with the ideas presented. The author then moves forward with a description of early humans (*Homo erectus, Neanderthal, Cro magnon*) and the possible path-

ways taken to arrive at *Homo sapiens*, 2000.

Two very interesting ideas presented by McCutcheon include his brief yet sensitive discussion of creationism and a look at the future evolution of human beings.

This is a wonderful book not only for children who ask questions about evolution of humans but especially for those children who do not ask questions. The book invites you to read it.

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My Indoor Garden. By Carol Lerner. 1999. William Morrow & Co. (1350 Avenue of the Americas, New York, NY 10019). 48 pp. Hardback $16.00.

This children's 'how to' book is a thorough and visually appealing introduction to growing and maintaining houseplants. The text is written for and concepts are aimed at children on a third to fourth grade level. The book is very straightforward in its style and thorough in its coverage of basic information on houseplants. Topics include light, temperature, humidity, selecting plants and equipment, plant care such as watering, fertilizing, what to do if the plant becomes diseased or needs repotting, and growing plants from seeds and cuttings. The text gives clear and thorough coverage to these topics. The book also gives ideas for different types of indoor gardens, such as water gardens. In addition, some basic concepts of plant biology, such as scientific naming, stomata and plant hormones, are discussed in the context of how to care for indoor plants. Illustrations are in watercolor and are beautifully done, making the book very visually appealing. At least 47 different common houseplants are illustrated; the illustrations are so well done that young readers can easily identify the plants from the illustrations. Illustrations also clearly show steps in the procedures and concepts discussed.

One topic often of interest to teachers, parents and students is ideas for science projects. While this book does not discuss science projects per se, the coverage is thorough enough that it can serve as a useful source of information and as a catalyst for project ideas. For example, the discussion of pinching back includes a brief introduction to plant hormones and can lead to development of experiments on pinched versus non-pinched plants.

Our one criticism is that the index covers only the plants illustrated and does not list topics. While the book is short, an index covering topics would have been a welcome addition, especially when children need to learn more about using this type of resource.

Keeping houseplants is a wonderful hobby for children, and this book does an excellent job in introducing them to houseplant care and propagation. More importantly, this is a book basic enough for children to understand but sophisticated enough that parents and teachers can also learn from it.

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